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Salt Dome Brine Disposal Sites

The Energy Policy and Conservation Act of 1975 (PL 94-163) required the development of a SPR (Strategic Petroleum Reserve) to avert future energy crises such as that experienced by the United States in the early 1970's. As a consequence, the U.S. Department of Energy (DOE) developed a SPR program that called for solution-mining of land-based salt domes in Texas and Louisiana to create caverns for the storage of petroleum. The solution mining would produce a concentrated brine as a by-product, which would be discharged into the waters of the northwestern Gulf of Mexico. The Environmental Protection Agency (EPA), National Marine Fisheries Service (NMFS), the commercial shrimp industry, and environmental groups expressed concern about the potential effects of brine disposal on shrimp (*Penaeus* spp.) and other biota of the northwestern Gulf of Mexico. As required by the Environmental Impact Statements, brine disposal monitoring plans were developed by DOE, EPA and the National Oceanic and Atmospheric Administration (NOAA). These plans encompassed environmental impact research managed by NMFS and others.

Only two of the salt dome brine disposal sites originally proposed by DOE are currently operational: the Bryan Mound brine disposal site off Freeport, Texas, and the West Hackberry brine disposal site off Southwest Louisiana. Brine discharge was initiated at the Bryan Mound site on March 10, 1980 and at the West Hackberry site on May 10, 1981. DOE has proposed that an additional brine disposal site called Big Hill be located off the upper coast of Texas, and it is projected to become operational in 1985.

The NMFS brine disposal impact assessment consisted of four major projects carried out during the years 1978-1982 by NMFS and its contractors. The projects were: Biological/Chemical Survey of Texoma (West Hackberry) and Capline (Weeks Island) Sector Salt Dome Brine Disposal Sites; Shrimp and Redfish Studies, Bryan Mound Brine Disposal Site; Shrimp Population Studies, West Hackberry and Big Hill Brine Disposal Sites; and Shrimp Population Studies, Bryan Mound Brine Disposal Site. The research, managed by the NMFS Southeast Fisheries Center (SEFC) Galveston Laboratory in Galveston, Texas, was funded by DOE through interagency agreements with NOAA.

For the most part, the projects employed state-of-the-art fisheries assessment techniques. The rationale for such an approach was (1) that the results would be expressed in terms familiar to the shrimp industry, and (2) any failure to detect impacts would suggest that the impacts were not of major consequence to the shrimp fisheries.

Major products of NMFS's assessment were: (1) final reports to DOE listed in a bibliography (NOAA Technical Memorandum NMFS-SEFC-147) available from the Department of Commerce, National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161, (2) data files archived by NMFS and NOAA and (3) research papers by participating investigators. Copies of the final report to DOE are also available from NTIS.

Buccaneer Gas and Oil Field

An environmental assessment of the Buccaneer gas and oil field in the northwestern Gulf of Mexico was conducted during 1975-1980. The interdisciplinary assessment, funded by the Environmental Protection Agency through an Interagency Agreement with NOAA'S National Marine Fisheries Service (NMFS),

and managed by the NMFS Galveston Laboratory, addresses environmental impacts of the Buccaneer gas and oil field (located about 50 km south-southeast of Galveston, Texas). Related investigations covered sediments, suspended particulates, hydrocarbons, biocides, elemental sulfur, avian populations, benthic communities, microbial communities, fishes (pelagic, demersal and reef), macro-crustaceans, bio-fouling communities, currents and hydrography, trace metals, ichthyoplankton, and mathematical modeling. Journal articles, reports, dissertations and theses from this study are listed in a bibliography (NOAA Technical Memorandum NMFS-SEFC-147) that can be requested from the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161. Many of the reports listed in the bibliography are available from NTIS.

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OCS Scientific Committee Reactivated

The Scientific Committee of the Outer Continental Shelf (OCS) Advisory Board of the Department of the Interior met in June, 1984 in Portland, Oregon, after a two-year hiatus of inactivity. The Scientific Committee advises the Director of the Minerals Management Service on the feasibility, appropriateness, and scientific value of the MMS's OCS Environmental Studies Program. The Committee may recommend changes in scope, direction, and emphasis of the program and applicability of the data being generated. The studies program has a \$27.9 million budget for Fiscal Year 1985.

Although officially in existence, the Scientific Committee has been inactive since 1982 because political considerations concerning appointments kept a large number of the positions on the Committee unfilled. Secretary William Clark appointed seven new members of the 15-member committee in April, 1984.

Current members include Dr. Robert C. Ayers, Jr., Exxon Production Research Company; Dr. Donald F. Boesch, Louisiana Universities Marine Consortium; Dr. Randolph Bromery, Geoscience Engineering Corporation; Dr. William R. Freudenburg, Washington State University; Dr. Thomas A. Grigalunas, University of Rhode Island; Dr. Donald Hood, Friday Harbor, Washington; Dr. John N. Kraeuter, Baltimore Gas and Electric Company; Dr. Bruce Mate, Oregon State University; Dr. Phillip Oxley, Tenneco Oil Exploration and Production Company; Dr. William H. Quinn, Oregon State University; Dr. George Rogers, Juneau, Alaska; Dr. J.R. Schubel, State University of New York, Stony Brook; Dr. Leah J. Smith, Swarthmore College; Dr. Dale M. Straughan, Paramount, California; and Dr. John M. Teal, Woods Hole Oceanographic Institution.

The Scientific Committee wishes to represent the scientific community in providing advice to MMS. Suggestions and comments concerning the OCS Environmental Studies Program can be directed to any of the Committee members or the Chair.

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